



# *Lowry Range Sub-Area Plan*

January 21, 2007



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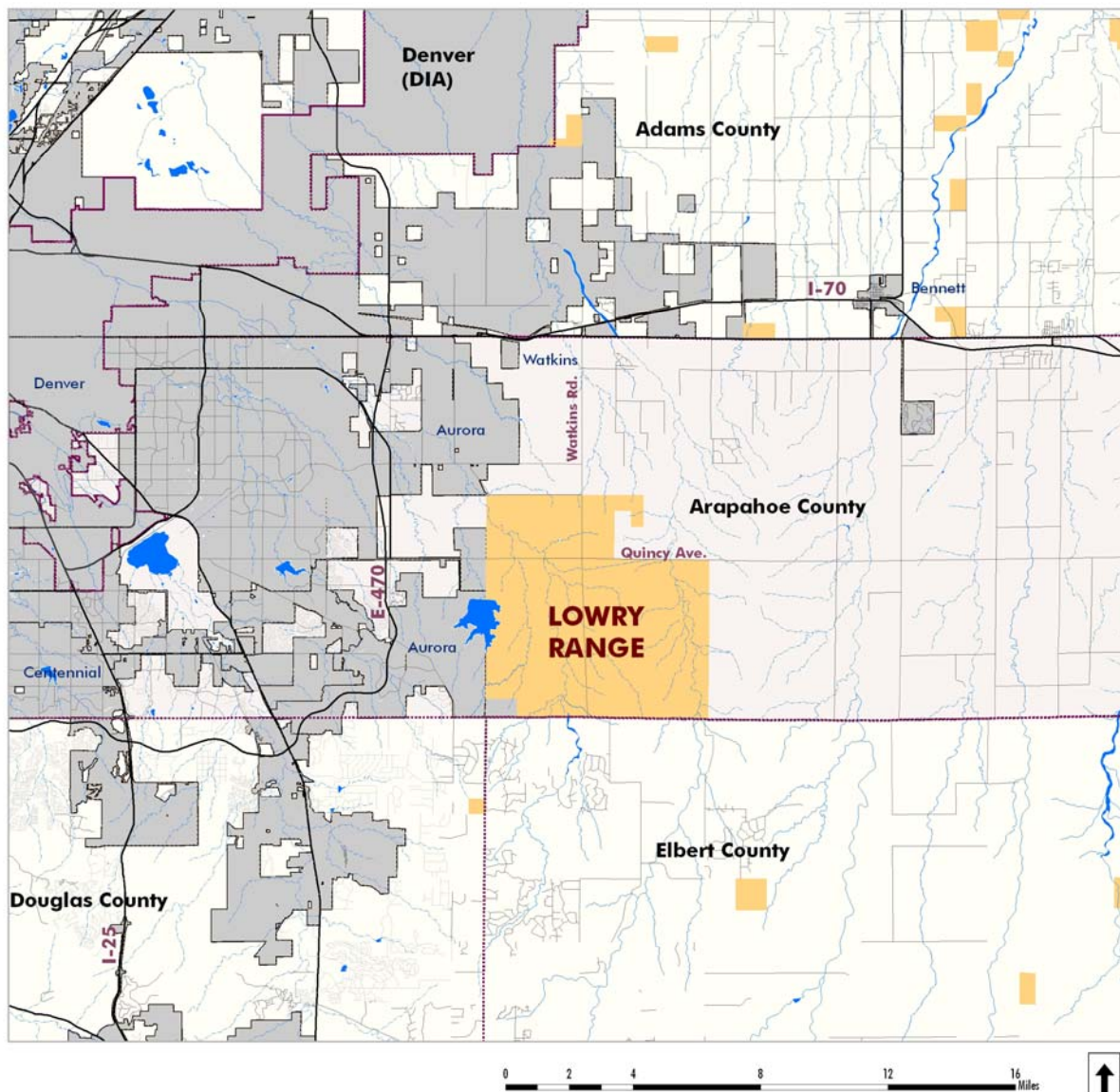
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# Chapter 1: Introduction

## Lowry Range Description

The Former Lowry Bombing and Gunnery Range (Lowry Range) is located in south-central Arapahoe County, Colorado, about 20 miles southeast of Denver. The portion of the Lowry Range presently owned by the State Land Board is the focus of this Plan. The State Land Board property encompasses approximately 26,000-acres, or a little over 40 square miles.

**Figure 1: Regional context of State Land Board Lowry Range property.**



Source: Colorado Department of Transportation GIS data



The Colorado State Land Board (SLB) describes the Lowry Range as “the Jewel of the Front Range,” and “one of the most spectacular properties managed in trust by the State Land Board...” (Source: SLB website, October 2006.)



*Lowry Range riparian area and grasslands.*

The State Land Board-owned Lowry Range is currently designated in the County’s Comprehensive Plan as a “Planning Reserve Area.” Most of the land is presently zoned A-1, Agriculture (which allows residential development at a density of 1 unit per 19 acres).

In 2005, the State Land Board issued two Requests for Proposals (RFP). The first is a “Request for Development Proposals” for 2,880-acres of the Lowry Range located north of Quincy Avenue for the area identified as “Mixed Development,” excluding Section 1 that has outstanding issues related to ordnance clean up. The second is a “Request for Conservation Proposals.” It identifies the land south of Quincy Avenue as “Conservation/Water Resource Development” and requests a “conservation partner.”

The timing and extent of development and conservation activities on the Lowry Range is uncertain; however, the RFP process initiated by the State Land Board triggered the County’s need to begin the Lowry Range Sub-Area Plan. The purpose of this Plan is to identify issues and concerns on the Lowry Range, anticipating a development and conservation master plan by the State Land Board and its partner(s).



## A Brief History of Lowry Range

The 40-square mile Lowry Range was historically much larger—covering 92 square miles. The Federal government established the Range on land acquired from the City and County of Denver in 1937. It opened in 1942 as an Army Airfield, and was part of the Army Air Corp's Western Technical Training Command during WWII, at which time it was used to conduct armament and bombing training. The training consisted of bombing practice with both practice and high explosive bombs at numerous bombing and gunnery targets across the site. (Source: Former Lowry Bombing and Gunnery Range website, [www.flbgr.org](http://www.flbgr.org).)

Between 1942 and 1963, numerous branches of the military used the Lowry Range for various training exercises. After World War II, the military also used the Lowry Range to support training exercises during both the Korean and Vietnam wars. Between 1960 and 1980, the federal government began to sell or transfer the majority of the Lowry Range to other non-Federal parties, including the 26,000 acres that now comprises the Colorado State Land Board holdings in Arapahoe County. Portions of the Lowry Range have been used for other purposes, including the area that is now the Lowry Landfill. Other portions have developed as residential neighborhoods in the City of Aurora.



*Western edge of State Land Board Lowry Range looking southeast.*

In June of 1991, the Lowry Range was established as a Formerly Used Defense Site (FUDS) and became eligible for environmental remediation funding. The FUDS program is designed to address risks to human health and the environment due to past military activities. Cleanup activities on the site have been underway since the mid-1990s, clearing approximately 1,800 acres of munitions.

In 1998, a group of nominators, including Arapahoe County, the City of Aurora, Colorado Open Lands, the Arapahoe Hunt Club, the Soil Conservation District, and the Division of Wildlife, all nominated this property to be held by the State Land Board Stewardship Trust. At that time, the SLB placed almost 23,000 acres in the Trust for long-term protection and management,

including two sections of the property north of Quincy Road, including the northern section of the Coal Creek corridor. Depending on the plans ultimately formulated for the property, portions of the Lowry Range may need to be removed from Stewardship Trust designation. To remove the land from the Stewardship Trust requires four Board members of the State Land Board to remove it.

## **Current Activities and Values**

Presently the Lowry Range is used for a variety of purposes, including:

- Water resources planning and management.
- Grazing and agricultural uses.
- Gravel extraction.
- Military helicopter training.
- Wildlife protection and habitat value. The property contains Piedmont Grasslands and riparian areas and is home to Leopard Frog, Great-Horned Owl, Swainson's Hawk, Pronghorn, and other species.
- Historical and cultural values. The Range has two historical sites, including remnants of a settlement area and possible stagecoach stop during early pioneer days and a former site of a planned military training area known as the "French Village."



*Barns on the property (City of Aurora)*

According to the State Land Board, "the Range has the opportunity to be a tremendous asset for the region through conservation and educational opportunities." (Source: SLB website, October 2006.)

## **What is the Sub-Area Plan's Purpose?**

The Planning Reserve Area Policies in the 2001 *Arapahoe County Comprehensive Plan* designate the State Land Board Lowry Bombing Range as a Planning Reserve Area outside of the County's Urban Service Area. In 2001, the County's Comprehensive Plan did not anticipate that the Lowry Range would develop within the 20-year planning time horizon. Now that the State Land Board has initiated efforts to develop portions of the property the County recognizes the likelihood of development occurring within a shorter time-frame. It is therefore necessary to undergo coordinated planning for the property prior to any development activity. Accordingly, the County initiated this process to update the Comprehensive Plan and to specifically develop

this Plan for the Lowry Range. This Sub-Area Plan supersedes the 2001 Comprehensive Plan sections that address the Lowry Range.

This Plan reveals the diversity and complexity of issues and conditions that will impact the future of the County, as well as the physical, social, and economic consequences that must be considered if and when development occurs. It frames key issues that should be addressed if and when development occurs.

## **How did the County Develop this Plan?**

This Plan reflects discussions with stakeholders, County staff, the Planning Commission, the Board of County Commissioners, the Open Space and Trails Advisory Board, and the public. The County developed this Plan over a six-month period in 2006 with a number of formal meetings and events described below.

### **Stakeholder Meetings**

Early in the planning effort, the County recognized the major stakeholders who would primarily drive this Plan to be the various agencies, service providers, nearby towns and counties, State Land Board, and non-profit organizations with a future stake in or potential impact from Lowry Range development. Because of the location of the Lowry Range, very few neighbors or residents would likely participate. Therefore, the County focused the majority of the public planning effort around a series of “Stakeholder Meetings,” where all the interested groups were invited to participate. The County hosted three well-attended stakeholder sessions in May, July, and September of 2006 to listen to stakeholders, present ideas, and understand concerns. Stakeholders who participated throughout the effort were:

- State Land Board
- Fire Protection Districts (Cunningham Fire Protection District, Bennett Fire & Rescue, and Sable Altura Fire District),
- Nearby Towns and Cities (Aurora, Centennial, former town of Watkins and Bennett),
- Adjacent Counties (Elbert and Douglas),
- School Districts (Aurora, Bennett, and Cherry Creek),
- Colorado Department of Public Health and Environment,
- Tri-County Health Department,
- Restoration Advisory Board member representative,
- Rangeview Metropolitan District,
- Aurora Water and Sewer Utilities,
- Conservation Organizations (Trust for Public Land, The Nature Conservancy),
- Open Space agencies and boards (Arapahoe County, City of Aurora),
- Colorado Natural Heritage Program,
- Department of Military and Veteran Affairs,
- Army Corps of Engineers,
- Some adjacent property owners and private developers.

## Public Meeting and Website Information

Recognizing that most interested parties participated in the process via Stakeholder Meetings, the County limited the number of “General Public” meetings. The County held one focused public meeting at the Fairgrounds facility in September of 2006 to share draft goals and policies and the draft sub-area plan. About 20 members of the public attended the meeting, including several developers, landowners, and nearby residents. The County also made interim drafts and meeting announcements available on its website throughout the planning process. Finally, the County publicized Planning Commission and joint planning meetings and made them open for public attendance and comments.

## Joint Planning Meetings

The County held several joint meetings of the Planning Commission, Board of County Commissioners, and Open Space and Trails Advisory Board to discuss issues raised during stakeholder discussions and recommendations addressed by the planning team.

## Planning Commission Meetings

The planning team met with the Planning Commission independently several times during the planning process to focus on specific concerns and input from the Planning Commission for this Plan.

In sum, this Plan reflects the input and comments from the stakeholders, public, and elected and appointed officials who participated throughout the Lowry Range planning effort.

## Plan Contents

In addition to this Introduction, The Lowry Range Sub-Area Plan contains the following chapters:

- **Issues and Opportunities.** Chapter 2 summarizes the issues that this Plan addresses through its goals and policies and through the Sub-Area Plan map.
- **Sub-Area Plan Map.** Chapter 3 contains the Plan Map and description.
- **Vision, Goals, and Policies.** Chapter 4 contains the vision, goals, and policies addressing topics such as land use, regional coordination, resource-sensitive growth, public facilities, and others.
- **Implementation Strategies.** Chapter 5 includes the specific strategies or actions to implement this Plan.
- **Appendices.** **Appendix A** includes the definitions for terms used in this Plan. **Appendix B** contains the inventory maps and information about conditions and resources on the Lowry Range. **Appendix C** contains a brief summary of the basic transportation analysis performed for this planning effort.

# Chapter 2: Issues and Opportunities

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## Introduction

Early in the planning process, the planning team worked with stakeholders and others to identify a list of key issues and opportunities to address in this Plan. This chapter summarizes issues that form the backdrop for this plan under the following topic areas:

- Land Use and Activities on the Lowry Range;
- Prior Uses and Ordnance Clean Up;
- Regional coordination;
- Conservation of natural resources and open space;
- Transportation;
- Infrastructure and urban services; and
- Water supply and quality.

## Land Use and Activities on the Lowry Range

### **Defining Appropriate Levels of Development and Conservation on the Property**

The Colorado State Land Board (SLB) has commissioned several development studies of the property in the past few years. Several of the development strategies suggested some development would be appropriate south of Quincy Road. However, the SLB's 2005 Request for Development Proposals for the Lowry Range offers only a small part of the property for development currently—2,880-acres north of Quincy Road. The SLB's goals include:

- Manage, control, and dispose of trust lands for the benefit of public schools in order to produce reasonable and consistent income over time;
- Economic productivity of trust lands is dependent on sound stewardship;
- Prudent management and disposition of trust lands;
- Comply with valid local land use regulations and land use plans.

This Plan helps define terms such as “development” and “conservation”—what each of these terms means in the context of Arapahoe County's Comprehensive Plan, and what are appropriate levels of activity for each.





*Trails are being discussed as part of future development and conservation of the Lowry Range.*

### **State Land Board “Sustainable Development Model”**

In its Request for Proposals document, the State Land Board identified its goals for the property to include “sustainable development” that will serve as a model for future development of the Denver region’s outlying, exurban areas, with particular emphasis on efficient use of water resources and energy. These goals are generally consistent with the County’s Comprehensive Plan policies, and this Plan supports the principles of sustainable development. Within this Plan “sustainable development” is presented as “resource-sensitive growth” and recommendations to make County regulatory requirements and processes consistent are provided.

### **County Policies on Urban Growth in Unincorporated Areas**

Growth management policies contained in the County’s Comprehensive Plan state that the County will encourage all new urban development to locate within the Urban Service Area. At present, the Lowry Range is outside of the County’s Urban Service Area. Comprehensive Plan policies and strategies also state that the County will require urban development in unincorporated areas to pursue annexation into a municipality at the time of development. This Plan recommends that the County’s policies be amended to allow urban development on specific portions of the Lowry Range if and when urban development is proposed in the unincorporated County. This Sub-Area Plan supersedes the 2001 Comprehensive Plan sections that address the Lowry Range.

### **Military Activities**

The Colorado Army National Guard (COARNG), based at Buckley Air Force Base in Aurora, for years has used portions of the Lowry Range for military helicopter training purposes. Permitted activities through 2007 on the Range involve flight training for 60 helicopter pilots that are based out of Buckley. These activities are of considerable importance to the COARNG due to ideal physical conditions and proximity to Buckley. Alternative sites are located some distance away incurring much greater costs for the military to do training.





*Buckley AFB Helicopters  
(City of Aurora)*

This Plan helps ensure that planned land uses in areas used for training or overflights are compatible with training activities.

## **Prior Uses and Ordnance Cleanup**

### **Timing/Pace of Ordnance Cleanup**

The U.S. Army Corps of Engineers (COE) with the Colorado Department of Public Health and Environment (CDPHE) oversight, is conducting cleanup activities. In a few areas around the Aurora Reservoir, landowners had a strong interest in developing on an accelerated timeframe (i.e., faster than the COE was able to obtain funding for the site investigation/cleanup). In those instances, CDPHE and the COE partnered to allow the developers to conduct the cleanup under joint supervision. In addition, the COE is overseeing the cleanup of a specified small area of the Range by a contractor, under a performance-based, fixed price contract. Due to factors such as the size of the site, the number of areas requiring munitions response activities, funding limitations, and year-to-year nature of federal allocations, the completion of munitions response activities will require many years. While much of the area proposed by the State Land Board for development has been cleaned up, some portions of the property that could be used for other uses (including recreation) are not.

Development of portions of the property for residential or other developed uses raises issues related to potential exposure to safety hazards, and what role, if any, the County would play in requiring disclosure statements to homebuyers. The State Attorney is recommending disclosures for purchasers of property. While proposed development areas are considered “clear,” this does not mean that there is 100% certainty that unexploded ordnance will not be found in the future. This Plan addresses the issue and needs related to coordination and timing of cleanup activities with the potential for other uses on the property.

## **Regional Coordination**

### **Development Jurisdiction**

Because of the complexity of the issues that will need to be addressed as plans for the property move forward, it will be important to address the question of jurisdiction early in the planning and approvals process. Should development occur in the unincorporated County; through annexation (i.e., to Aurora); or through creation of a newly created municipality? This Plan does not recommend one jurisdiction over another, but does identify steps that will need to take place if and when the State Land Board and its development partner(s) proceed.

### **Regional Impacts**

Impacts and opportunities created by activities on this property are far-reaching and will affect a number of jurisdictions and agencies. As such, it is critical that agencies collectively make decisions and consider costs and impact to all jurisdictions, as recommended in this Plan.

### **DRCOG MetroVision Growth Allocation**

Metro Vision, the Denver region's long-range regional plan, defines an Urban Growth Boundary and Growth Area (UGB/A) where urban development will take place. As part of the Metro Vision plan, each community is allocated its own growth area, based on past trends and future projections. The Lowry Range property is not presently contained within the Growth Boundary/Area. This issue will require an amendment to the UGB/A. The Metro Vision 2035 Plan includes a process and criteria for considering UGB/A changes on a biennial basis. This Plan recommends when it may be appropriate for the County to work with DRCOG.

## **Conservation of Natural Resources/Open Space**

### **Natural Resource/Habitat Protection**

The property is an unusually large, contiguous and relatively untouched prairie grassland with significant wildlife habitat, open space, and natural values. The ecological systems on the Lowry Range include Western Great Plains Foothill and Piedmont Grassland, Western Great Plains Riparian Woodland, Shrubland and Herbaceous, and wetlands associated with the Coal and Box Elder Creek drainages. (Source: *Lowry Range Biological Survey 2005*, Colorado Natural Heritage Program). This Plan contains a guide to future planning for the property to ensure effective management and protection of resources.

### **Level/Impacts of Recreational Uses**

Potential uses on the property could include a wide range of recreational uses, from passive, very low impact uses (such as hiking) to active uses with a broader range of impacts (boating, camping). Future planning efforts will need to consider how recreation uses might impact the site's resource base. This plan addresses this issue.



*Box Elder riparian area.*

## **Resource Management**

As conservation plans and strategies for the property move forward, the County will need to identify its role along with other conservation partners, including coordination with the County's recently established open space program. This Plan suggests approaches to management and coordinated planning, including the existing Use by Special Review process for sand and gravel mining activities in the Coal Creek drainage basin.

## **Transportation**

### **Road Corridor Constraints and Impacts**

Future access from the Lowry Range and urban development to the Denver Metropolitan Area and E470 is primarily along Quincy Avenue. This is because existing physical facilities west of the property (i.e., Lowry Landfill and Aurora Reservoir), constrain the ability to create additional east-west roads to serve the Lowry Range. Quincy Avenue will require significant widening and intersection improvements to serve future traffic. Watkins Road will likely become a major north-south corridor.

Because of its location at the eastern edge of the Denver metro area, the Lowry Range is at the "end of the line" from a standpoint of regional transportation systems. As such, all traffic generated by uses on the property will have the potential to impact traffic rather significantly on other regional roads, many of which are already significantly congested. These roads include Quincy, Yale, County Line/Smoky Hill Roads, and Arapahoe Road. Furthermore, the County currently serves roads in this part of the County from its Peoria facility, but a new facility may be necessary if urban development occurs on the Lowry Range.



*Quincy Avenue is currently a two-lane rural road. (Quincy Avenue looking west with Box Elder Creek in the foreground).*



*Quincy Avenue and Watkins Road intersection currently – two rural roads.*

If urban development occurs on the Lowry Range, means of financing road and other transportation improvements (including capital costs as well as ongoing maintenance) will need to be identified. Urban development will also trigger the need for offsite improvements to accommodate traffic to and from the Lowry Range, as well as roads and other facilities that may be needed to serve recreational areas and uses. This Plan begins to identify and address some of the transportation needs.

## **Transportation Plan Update**

The County last updated its Transportation Plan in 2002. As with the Comprehensive Plan, the Transportation Plan did not anticipate development of the Lowry Range during the planning horizon (through the year 2020). Accordingly, the County will need to update its Transportation Plan to account for new road and other transportation facilities that will be necessary to provide access to the Lowry Range if development occurs.



## **Conservation/Road Location Conflicts**

New roads or transportation corridors will be required to serve future development and recreational uses. Future transportation corridors will need to be sited in a way that minimizes impacts on conservation areas and natural resources. This Plan includes policies to address location and design of roads.

## **Infrastructure and Urban Services**

### **Cost/Method of Providing Services**

The Lowry Range property is located in a part of the County that currently has very limited urban services and infrastructure. Plans for development will need to address how to provide the full range of needed facilities and services (infrastructure, emergency and law enforcement services, community services such as parks and libraries, and general government services), as well as how to fund and maintain them on an ongoing basis, so that there is no net cost to County residents outside of the area. If Special and/or Metropolitan Districts are proposed, the County will need to evaluate its policies regarding the formation of and agreements with such entities to provide services. This Plan addresses how to provide facilities and services at the time of development.

### **Water and Sewer Services**

Several sections of the Lowry Range are not presently within the service area of any metropolitan or water and sewer districts. (See Map B-2: Water and Sanitation Districts in Appendix B.) This Plan's policies state that water and sewer service questions must be resolved before any development occurs.

### **School District Jurisdiction/Funding**

The property is presently located in three different school districts: Aurora, Bennett, and Cherry Creek. (See Map B-3: School Districts in Appendix B.) All of the land currently under consideration for development (north of Quincy) is located within the Aurora District (28J). District staff has expressed concerns about how school facilities would be provided for and funded, particularly should development occur in unincorporated Arapahoe County, since the mechanisms they use to obtain sites are tied to City of Aurora regulations and procedures. This Plan contains policies to address the school districts' needs.

### **Fire Protection District Jurisdiction**

Portions of the property are not served by any fire protection district (e.g., Bennett, Cunningham, Sable Altura). (See Map B-4: Fire Protection Districts.) Determining which fire protection district will serve future development and respond to emergencies is necessary before development occurs. This Plan's policies address this issue.

## Water Supply/Quality

### **Aurora Reservoir Water Quality**

Aurora Reservoir, a key element of the City of Aurora's drinking water system, is located directly to the west of the Lowry Range boundary. The City of Aurora has expressed concerns that development activities (specifically land disturbance) in the reservoir's watershed could have significant impacts on the quality of the water stored in the reservoir. This Plan contains goals and policies to protect quality of surface and groundwater on the Lowry Range.



*Aurora Reservoir is on the west side of the Lowry Range State Land Board property.*

### **Potential New Reservoirs South of Quincy Avenue**

Both the City of Aurora and the Rangeview Metropolitan District have identified sites for new surface water reservoirs in various locations on the property (all south of Quincy Avenue). Four of the proposed reservoir sites (Rangeview) are adjudicated. The location and timing of these facilities will need to be taken into consideration as future plans are developed. This Plan's Sub-Area Plan map recognizes locations of adjudicated reservoirs and the plan's policies address siting and potential impacts of future reservoirs.

### **Adequacy/Sustainability of Water Supply**

If development plans for the property proceed, the Lowry Range will someday support a large population of residents and workers. At the present time, Rangeview Metropolitan District has infrastructure in place to develop, treat, and deliver potable water. Prior to any development, assurances will be needed that the area can be served by an adequate and sustainable water supply and that wastewater treatment can be provided, as set forth in this Plan.



## Chapter 3: Sub-Area Plan Map

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### **The Plan Map**

The Lowry Range Sub-area Plan Map (Plan Map) establishes a broad framework for the future intensity and timing of development but does not ascribe specific land use categories to particular locations. (See Figure 2: Sub-Area Plan.) It is generally consistent with the State Land Board diagram that accompanied the November 2005 Request for Development Proposals, and designates two major categories: (1) Conservation Area, and (2) Urban Development Area. Within the Urban Development Area, it also contains a Future Development Area, noted on the Plan Map and described below.

### **Conservation Area**

The Plan Map designates the majority of land south of E. Quincy Avenue as a “Conservation Area,” (approximately 22,300 acres) allowing a mix of resource-based and conservation-oriented activities and water resource improvements. Chapter 4 goals and policies further describe the intent for the Conservation Area.

### **Urban Development Area**

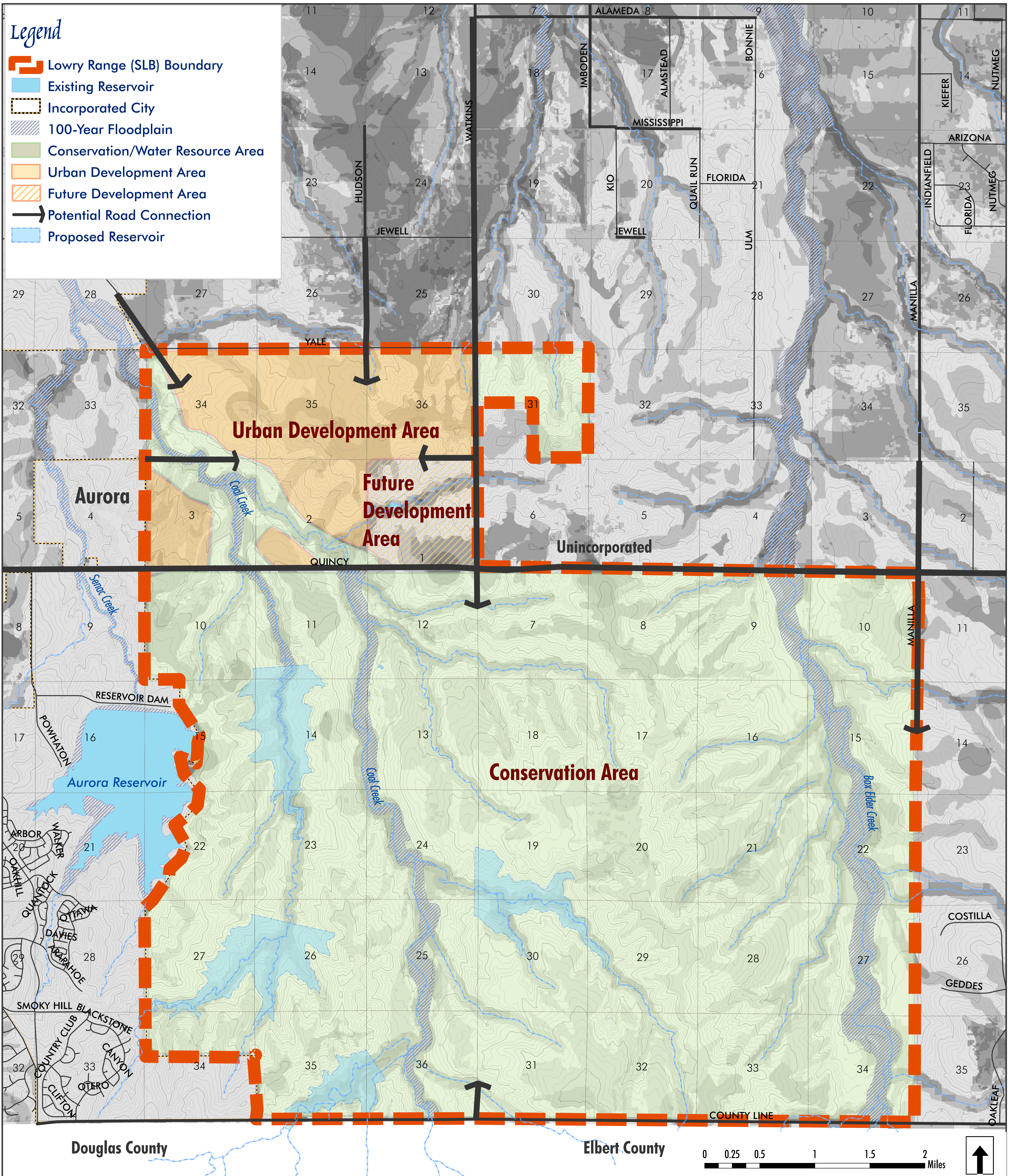
The Plan Map designates an “Urban Development Area,” ( approximately 2,275 acres) that allows residential, business, and industrial development. This area is generally north of E. Quincy Avenue, excluding open space corridors following drainages and encompassing other natural resources.

The Plan Map does not define a precise pattern of urban development or densities and quantities, leaving some flexibility for the State Land Board and its development partner(s).

### **Future Development Area**

The “Future Development Area” on the map (approximately 600 acres) is land that has outstanding issues related to ordnance clean up and will take longer to develop than the “Urban Development Area.” It is located in section 1. The intent for long-term is that this area could become open for urban development purposes.





# Lowry Range Sub-Area Plan

Arapahoe County



January 8, 2007

Figure 2



# Chapter 4: Vision, Goals, and Policies

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## Introduction

This chapter contains the Vision Statement and goals and policies for topics the County has authority to address related to the Lowry Range, identified as a Planning Reserve in the County's 2001 Comprehensive Plan.

The vision statement is the broad declaration of the County's ideals for the Lowry Range, recognizing that the State Land Board (SLB) has a role in making decisions about future activities in collaboration with the local agencies. Generally, the County's vision is consistent with the State Land Board's goals and will necessitate on-going collaboration between the County, SLB, and their development and/or conservation partner. This is a unique plan and opportunity on the Front Range to balance resource conservation and long-term stewardship with urban development. The State Land Board describes it as the "Jewel of the Front Range," and the County sees it as a "Keystone" opportunity.

## Vision Statement

Lowry Range Sub-Area Plan vision:

**Future activity on the Lowry Range will balance conservation and development in a sustainable, resource-sensitive manner. The property will become a "keystone" open space, conservation, and water resource area with regionally connected open space and trails. New resource-sensitive growth and development in appropriate and confined locations will balance the community's social, health, safety, fiscal/economic, and environmental needs.**

The goals and policies that follow identify policy directions to help realize this vision for the Lowry Range, should new development occur in the County's jurisdiction.

## **Land Use Goals and Policies**

The Lowry Range is seen as a tremendous opportunity for urban development and a once-in-a-lifetime opportunity for conservation of a large contiguous parcel of land on the Front Range. The goals below address how to balance urban development with conservation on a majority of the Lowry Range property.



*Future activity on the Lowry Range will balance conservation and development.*

### **Goal LU 1: Sustain Lowry Range south of Quincy Avenue as a “keystone” conservation property.**

The County will work with the State Land Board and other partners to conserve the 22,000-acres south of Quincy Avenue as a “keystone” natural resource conservation, water resource development, and open space parcel, after environmental remediation is complete. (See Policy PF 4.) To meet State Land Board mandates, some recreation or resource-based commercial improvements or activities may be necessary, but they must be compatible with the overall natural resource conservation goals (e.g., mining, continued military helicopter training, water resource development, recreation-oriented or water-recreation improvements and trails, and other activities may be appropriate depending on location). Residential and urban development is generally not compatible with conservation goals.

#### **Policy LU 1.1: Conservation Area South of Quincy Avenue**

The Lowry Range Sub-area Plan Map (Figure 2: Sub-Area Plan Map) designates a “Conservation Area” (generally south of Quincy Avenue and a portion of Section 31 east of Watkins Road). Conservation uses and limited recreation or resource-based improvements should occur in this area. Appropriate activities in areas designated for conservation include recreation, water resource development, resource-based commercial activities, and other resource-based activities. Residential, non-resourced-based commercial, and industrial land uses (i.e., urban development) are not appropriate in areas designated for conservation. (See also Natural and Cultural Resources Conservation section for more detailed discussion about management and stewardship of significant habitat and natural areas.)

#### **Policy LU 1.2: Commercial Uses Compatibility South of Quincy Avenue**

To provide for supporting uses and services, some level of natural resource and recreational-based commercial development may be appropriate on a case-by-case basis in the Conservation Area south of Quincy Avenue. Other types of commercial and

employment uses (e.g., non-resource or recreation-based) will only be allowed in areas north of Quincy Avenue. Such small scale development may be appropriate as long as it is sited in a manner that protects the integrity of drainages and significant natural areas, minimizes visual obtrusiveness, maintains views and vistas to the Conservation Area, and fits the character of the area. In some cases it may be appropriate for open space to provide a buffer between urban development and the Conservation Area, both north and south of Quincy Avenue.

### **Policy LU 1.3: Continued Military Helicopter Training**

Military helicopter training is considered to be one of the appropriate activities in the Conservation Area. Other uses and activities in the Conservation Area should be located and designed to consider impacts on/from helicopter training safety for all users.

### **Goal LU 2: Confine future urban development to designated areas north of Quincy Avenue.**

The County aims to confine urban development, including residential, neighborhood commercial services, and industrial development generally to lands north of Quincy Avenue, as indicated on the Plan Map. Development should only occur after environmental remediation is complete. North of Quincy Avenue, new development should also be located away from the Coal Creek drainage and protect natural and cultural resources, thereby also providing amenities for future neighborhoods. It should also be sensitive to adjacent land uses.

### **Policy LU 2.1: Urban Development Area**

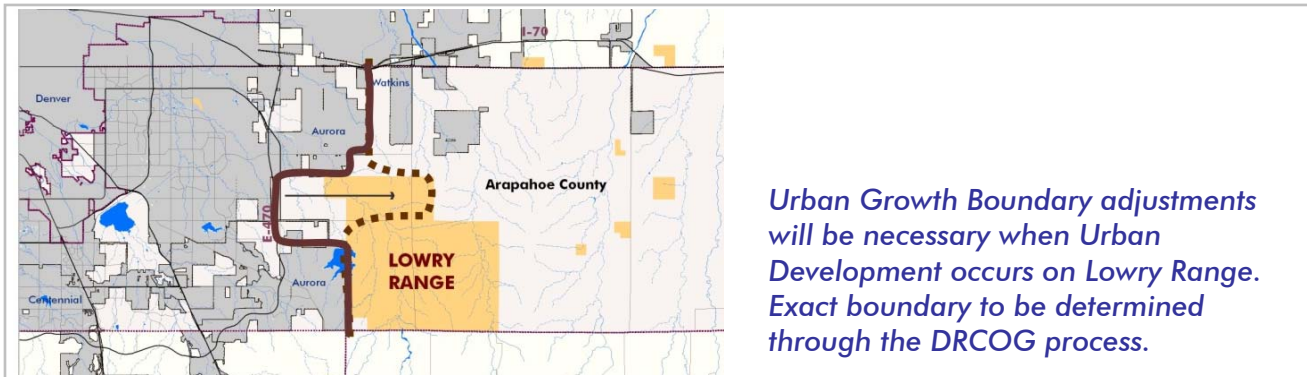
Residential, non resource-based commercial or businesses, and industrial development should be limited to areas designated for “urban development” shown on the Plan Map. (Note: See Goal RS 1, for recommendations about “Resource-Sensitive Growth” development patterns and types.)

### **Policy LU 2.2: Protection of Coal Creek Drainage North of Quincy Avenue**

The Plan Map designates the Coal Creek floodplain north of Quincy (and south) as a significant habitat or natural areas. Developer(s) should keep buildings out of the Coal Creek floodplain and protect the riparian area.

## **Regional Coordination/Urban Growth Management Goals and Policies**

Impacts and opportunities created by future activities on the Lowry Range will be far-reaching and will affect a number of jurisdictions and agencies. As such, it will be critical that agencies make decisions collectively and consider costs and impacts to all jurisdictions. Because of the complexity of issues to address, the goals below identify the need to resolve jurisdictional issues before urban growth and development occurs on the Lowry Range.



### **Goal RC 1: Resolve jurisdictional questions before urban growth occurs on Lowry Range.**

Because of the complexity of service provision and fiscal issues, it will be important for the State Land Board, development partner(s), the County, and other agencies to propose how to provide services and resolve governmental jurisdictions before development occurs.

#### **Policy RC 1.1: Annexation of Urban Development Area**

The County will work with State Land Board, its development partner, and affected municipality to determine when, where, and if new developments will propose annexation to one of the adjacent municipalities (i.e., Aurora). If a municipality annexes the Lowry Range Urban Development Area, the County will work with that municipality to address annexation and service agreements to ensure that no negative fiscal or other impacts occur in the County and that boundaries are logical and contiguous.

#### **Policy RC 1.2: Urban Development in the County**

If urban development is proposed to occur in the County, the following steps should occur prior to development approval:

- Work with DRCOG to obtain a growth allocation for Metro Vision 2035 for Lowry Range growth area North of Quincy Avenue.
- Adjust the County's Urban Service Area boundary.
- Require developer to propose a metro district and other financial mechanism(s) and IGAs with service providers to ensure all essential facilities and services are provided concurrently with development. (See also Goal PF2.)



## Resource-Sensitive Growth and Neighborhood Goals and Policies

The County's Comprehensive Plan calls for considering sustainable development of the Lowry Range. Furthermore, one of the State Land Board's goals for the property is to "accomplish sustainable development... in a manner that will provide a model for future development of the Denver metro area's exurban regions, with particular emphasis on sound use of water resources and efficient use of energy" (may include concepts of "Green Build" and "Smart Growth"). This Plan describes these principles as "Resource-Sensitive Growth" and the goals below recommend that aim. Any future neighborhood development that occurs on the Lowry Range should be of exemplary design quality containing a mix of uses, not just isolated subdivisions. If development occurs, it is a great opportunity to model exemplary development for the region and State.



*Passive solar architecture (One Earth Design) is an example of green build. Alternative transportation options help reduce energy use as well (LSA).*

### Goal RS 1: Promote "resource-sensitive growth."

The County will promote resource-sensitive growth in the form of new community development that is livable and vital for the long-term, as described in the principles below. New neighborhoods, businesses, and other development should balance community, social, health and safety, fiscal/economic, and environmental goals to:

- Conserve, reuse, and recycle water, energy, and resources;
- Protect natural areas and open space, drainages and ridgelines;
- Protect water quality;
- Provide for safe and convenient travel (including walking, bicycling, and transit use);
- Provide a mix of housing, jobs, and services;
- Provide a diversity of housing options across market prices ranges; and
- Promote healthy, active lifestyles.

*(Note: the State Land Board recommends that new development follow a "sustainable development model," focusing primarily on water and energy conservation. This Plan uses the term "resource-sensitive growth" instead of "sustainable development" and expands the principles to address economic vitality and community well-being.)*

#### Policy RS 1.1: Resource-Sensitive Growth Principles

New development must address and follow the principles of resource-sensitive growth as outlined on page 22.

## Resource Sensitive Growth Principles

### *Healthy Environment and Efficient Use of Resources*

New development must contribute to a healthy environment and use resources efficiently, including proposing measures to:

- Conserve energy and use energy efficient design and construction (e.g., Leadership in Energy and Environmental Design (LEED)),
- Conserve and reuse water and wastewater,
- Protect air, soil and surface and ground water quality,
- Reduce solid waste,
- Protect natural areas and wildlife habitat and migration routes, and provide open spaces,
- Design safe and efficient infrastructure and services through neighborhood design for mixed use, civic spaces, and multiple transportation modes, including transit, bicycling, and walking.

### *Economic Vitality*

New development must contribute to economic vitality of the local community and region including proposing measures to:

- Ensure net positive revenues to County, other municipalities, and districts,
- Provide a beneficial land use mix including homes and businesses,
- Attract and provide quality businesses and industries that reinvest in the community,
- Develop adequate transportation systems,
- Support expansion of communication technology and infrastructure to support businesses and industry.

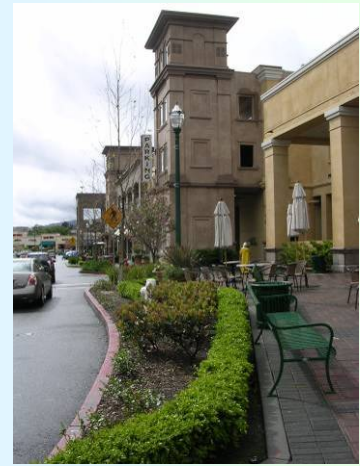
### *Social Well-Being/Vibrant Community*

New development must contribute positively to the social well-being of the future neighborhoods and overall community, including proposing measures to:

- Include a mix of housing types,
- Provide services to provide public safety and health care accessibility,
- Provide opportunities for life-long education and civic participation.

### *Agriculture/Food Production*

New development must include opportunities for food/agricultural production as appropriate (such as range land or other agricultural activities, community or rooftop gardens).



*Mixed-use with compact development supports multiple modes of transportation, including transit and walking.*



*New businesses should provide primary employment options to neighborhood residents and contribute to the fiscal health of the community.*



*A variety of housing types provide options for people at different stages in their lives to live within the same neighborhood.*

## **Goal RS 2: Promote high quality new neighborhoods on Lowry Range.**

Arapahoe County will promote high quality design of new neighborhoods. New neighborhoods should contain a diversity of housing types, as well as services and jobs and should follow urban neighborhood design principles. (See page 24).

### **Policy RS 2.1: Neighborhood Design Standards or Criteria**

The County will build on neighborhood design principles (on page 24) to provide criteria or standards for neighborhood design. These criteria or standards will be defined through a negotiated process with the SLB and/or their selected partners at the time of rezoning.

### **Policy RS 2.2: Walkable, Mixed-Use Neighborhood Centers**

Higher density neighborhood centers, including retail and housing, should be oriented around schools, parks, civic centers, and commercial services to provide walkable, mixed-use neighborhoods.

### **Policy RS 2.3: Transitions or Buffers for Adjacent Rural Neighborhoods**

New development on the Lowry Range should provide lower density transition areas or buffers for adjacent rural residential developments and agricultural uses and between incompatible land uses (e.g., residential development and high quality habitat or residential and industrial uses).

## **Goal RS 3: Provide a mix of housing, jobs, and services in Lowry Range Urban Development Area.**

The County's Comprehensive Plan promotes a balance of jobs and housing countywide and a mix of housing types to provide housing options. New urban development on the Lowry Range should provide a mix of land uses, including, housing, jobs, and services.

### **Policy RS 3.1: Mix of Activities**

New urban development must include a mix of housing, jobs, and services, such as ratio of commercial uses to residential uses, to avoid a "bedroom-only" community.

## Neighborhood Design Principles

As urban development occurs north of Quincy Avenue, new neighborhoods must follow urban neighborhood design principles, as follows:

### *Design for Pedestrians*

Residential neighborhoods should be compact and walkable with short blocks (typically less than 400-600 feet in length). Incorporate wide and detached sidewalks and paths, seating, low-level lighting, and signs that are scaled for pedestrians in high activity areas.

### *Include Community Facilities and Services*

Neighborhoods should include schools, fire and police stations, libraries, parks, and open space, and other community facilities to serve the needs of residents. Neighborhood commercial uses should be designed to connect to adjacent neighborhoods with streets and sidewalks.

### *Connected Open Space*

Provide connected open space within developments that is sited to protect natural areas and provide neighborhood amenity. In some instances open space can be achieved by clustering development.

### *High Density Housing Near Services*

Cluster high density residential development around commercial centers, providing opportunities for residents to walk to shops, services, and jobs. Apartments, lofts, and townhomes can provide transitions between commercial and lower density residential areas.

### *Designed for Multiple Transportation Modes*

Provide for interconnected block and street patterns and provide access to the arterial street system, help meet national emergency service response time standards, and connect to transit and park-and-rides if possible. Provide connections to trails and greenways.

### *Environmentally Sensitive Design*

Protect and enhance environmental quality (e.g., views, access to open space, protection of natural features such as habitat and riparian areas).

### *Variety and Community Identity*

Design new residential developments to allow for and encourage a variety of homes and activities, connectivity, recreation, and unique community identity. Avoid visual monotony (e.g., “cookie cutter subdivisions”).



*Wide detached sidewalks, shade trees, and other amenities foster an inviting pedestrian environment within this Stapleton neighborhood.*



*Whether small parks or larger recreation centers like this one, community spaces are an integral part of healthy neighborhoods. These places should be easily accessed from adjacent neighborhoods by direct pedestrian connections.*



*Open space within developments, like this drainage corridor, can help conserve open space and natural values while also creating opportunities for trails and connections between residences and other recreation, service, and civic destinations.*



## Natural and Cultural Resources Conservation Goals and Policies

The Lowry Range is rich in biological and cultural values. A biological survey and assessment of the property in 2005 shows that the area has a mix of ecological systems, including Piedmont grassland, short-to-mid grass prairie, wetlands and riparian areas along the drainages, and a number of plant, wildlife, and bird species including eleven uncommon and rare species. (Source: Lowry Range Biological Survey, CSU/Colorado Natural Heritage Program, 2005.) The Range has numerous species of conservation priority and the ecological systems present are in fair to good condition. Of those species, the northern pocket gopher may require preservation of its population on the Range to help prevent its extinction. In addition, The Range ecosystems support black-tailed prairie dogs and their predators, including hawks, falcons, fox, and owls. The Coal and Box Elder Creek drainages have wetlands and riparian areas that are in fair to good condition. The goals below promote balancing these conservation needs and ways to provide long-term stewardship.



*Lowry Range wildlife (City of Aurora).*

### Goal NC 1: Conserve land south of Quincy Avenue and along the Coal Creek and Box Elder drainages.

The County will promote conservation of large connected ecological systems or natural areas on the 22,000-acre parcel south of Quincy Avenue, also recognizing that multiple-resource-based activities will take place there.

Resource-based activities are appropriate in the Conservation Area, depending on conservation objectives for specific sites. Recreation improvement and water resources development may be appropriate in some areas. They should be designed to enhance the amenities on the site and not degrade significant natural areas. The County recognizes it will take a variety of land use and conservation tools, partnerships, and management approaches to conserve large contiguous portions of the Lowry Range and to meet SLB fiduciary obligations.

#### Policy NC 1.1: Urban Development in Floodplains Prohibited

New development must not place fill within waters of the U.S. and must not put residential or commercial development in the 100-year floodplain. In some instances, additional setbacks and/or buffers may need to be provided beyond the limits of the 100-year floodplain, to protect sensitive natural resources. This will be determined on a case-by-case basis, to be guided by the Management Plan developed for the Conservation Area. (See policy NC 1.2 below.) Actual floodplain delineation will be required during the zoning or entitlement process.

#### Policy NC 1.2: Management Plan for 22,000-Acre Conservation Area (Focused on Significant Natural Areas)

The County should support partners in developing management plan(s) and defining appropriate levels of recreation improvements or other activities in the significant natural areas to sustain the resource base. (See Policy 2.2.)

### **Policy NC 1.3: Significant Natural Areas Protected to the Extent Possible**

Restore or protect significant natural areas to the extent possible. Intensive improvements in the Conservation Area (including but not limited to roads, reservoirs, well drilling, utilities, resource-based commercial activities, and trails) should be sited, designed, and constructed to minimize degradation to “significant natural areas” or “Sites of Local Significance” identified by the Colorado Natural Heritage Program (CNHP). (See Goal NC 2, below and Map B-8: Significant Natural Areas in Appendix B.)

### **Policy NC 1.4: Resource-Sensitive Growth Principles for Conservation Area**

New recreation-oriented improvements in the Conservation Area should follow the Resource-Sensitive Growth principles. (See Policy RS 1.1.)

## **Goal NC 2: Provide long-term stewardship to protect significant natural areas and drainages.**

The County will aim to protect in perpetuity through wise management the significant natural areas, or “Sites of Local Significance,” identified by the CNHP. Significant natural areas include:

1. Piedmont Grasslands Site of Local Significance (south of Quincy Avenue and east of the Coal Creek drainage);
2. Wildlife habitat, Sites of Local Significance (various locations south of Quincy Avenue);
3. Riparian Sites of Local Significance (including Coal Creek north of Quincy Avenue, and Box Elder Creek, south of Quincy Avenue); and
4. East Lowry Range Uplands Potential Conservation Area (south of Quincy Avenue and east of Watkins Road).

These areas are identified on the Natural Heritage Program/Significant Natural Areas Map. When determining potential uses or activities, consider the impacts in these significant or sensitive resources.

### **Policy NC 2.1: Long-Term Stewardship of Significant Natural Areas and Sensitive Resources**

The County will work with partners to ensure long-term stewardship of significant natural areas and sensitive resource areas through the management planning efforts.

### **Policy NC 2.2: Management Plan(s) for Conservation Area**

Development entities and other partners should develop a management plan (or plans) for the Conservation Area (with particular attention on significant natural areas). The management plan(s) should determine appropriate intensities of activities and management approaches for the Conservation Area. The CNHP’s recent study outlines some potential management approaches including: minimizing disturbance of habitat areas; managing grazing in riparian areas and wetlands; managing mining impacts on Coal Creek and habitat areas; managing impacts of reservoir development and well drilling; developing a weed management plan; and other approaches. These recommendations shall be taken into consideration during the process of developing a management plan for the Lowry Range.



**Policy NC 2.3: Compatible Activities for Conservation Area**

Determine compatible activities and uses for the Conservation Area. For example, some uses identified include military training, low impact recreation, camping, trails, water resource development and management, ranching, and resource-based commercial activities. Others may be possible. Potential activities may range from low impact, habitat restoration and management activities with limited improvements, to high impact recreation uses, such as boating and resource-based commercial recreation improvements, depending on the significance of the natural and cultural resources on the site.

**Goal NC 3: Monitor and protect water quality.**

The County will ensure that development and recreation improvements protect reservoirs and water quality. Future development and recreation improvements must also protect wells (e.g., Rangeview Metropolitan District planned well sites), proposed reservoir sites, and utility corridors.

**Policy NC 3.1: Development Setbacks Near Water Bodies**

Development must provide setbacks near existing and planned water bodies. The County recommends a minimum 200-foot setback for any water body and a wider setback for any improvements or development around drinking water reservoirs.

**Policy NC 3.2: Development Setbacks for Wells and Utility Easements**

New development must provide setbacks from planned and existing wells and utility easements. A minimum 100-foot setback is recommended.

**Policy NC 3.3: Water Quality Education**

The County, developer(s), and other partners should educate future residents about pollution run-off of fertilizers, household chemicals, land disturbance/soil run-off, and other pollutants that affect drinking water reservoirs. The County should work with Elbert County to inform residents upstream who may also impact water quality on the Lowry Range.

**Policy NC 3.4: Watershed Management Principles**

Wise watershed management principles such as erosion control management, road and trail placement, sediment control structures, vegetation management, upstream ponds, and field terraces, should be applied throughout the Lowry Range to reduce storm water runoff impacts, but particularly above reservoir sites.

**Goal NC 4: Protect historic and cultural sites.**

Historical and cultural sites on the Lowry Range should be protected.

### **Policy NC 4.1: Development Located Away from Cultural and Historic Sites**

Locate development away from cultural and historic sites (e.g., missile silo, “French Village,” stagecoach stops, homestead sites, and settlement areas).

### **Policy NC 4.2: Cultural and Historic Sites Connected to Open Space and Trails System**

Find opportunities to connect cultural and historic sites to the regional open space and trails system to showcase and education the public about these sites as appropriate. Site, design, and construct public access improvements in a manner that protects these resources.

## **Open Space and Trails Goals and Policies**

The County’s Open Space and Trails Program is working to identify a system of open space and trails and provide regional and local open space and trails connections on Lowry Range. The County has an acquisition and improvement fund, and aims to leverage its funds through partnerships, grants, dedication requirements, and other sources of funding. Nearby jurisdictions, such as Aurora, have also been conducting regional open space and trail planning efforts in the area. These goals identify the County’s interest in working regionally to establish open space and trails on the Lowry Range and to connect them to a regional system.



*Lowry Range could contain a system of trails with local and regional connections.*

### **Goal OS 1: Establish open space and trails on the Lowry Range that connect to a regional system.**

The Lowry Range should have an internally connected system of open space and trails that link to a regional system of open space and trails as established in an open space master plan created for the area.

### **Policy OS 1.1: Regional Linkages—Open Space and Trails**

Arapahoe County management and staff will continue to plan a system of open space and trails on the Lowry Range. The system should provide regional linkages to trails in adjacent jurisdictions, educational opportunities, stewardship, views, and recreation opportunities. This shall include consideration of trails for motorized vehicles in appropriate locations, as determined during the Management Planning process for the Lowry Range.

### **Policy OS 1.2: Trails Designed Around Resources**

The County, conservation partners, and/or developers must site, design, and manage trails to minimize impacts on natural areas and other resources.

**Policy OS 1.2: Leverage County Open Space Program**

The County will leverage its Open Space and Trails acquisition and improvement funds through partnerships, grants, dedication requirements, and other sources of funding.

## **Transportation Goals and Policies**

In the future, large numbers of residents and workers could be driving or commuting via transit or other means to and from the Lowry Range, which is about three miles east of E-470 and other major urban transportation network facilities of the Denver region. Physical constraints and facilities west of the property exist that make east-west connection roads other than Quincy Avenue challenging. Thus, Quincy Avenue will be the major arterial serving the property and Watkins Road is the north-south arterial that would serve the property. Both roads will require major improvements to urban levels to serve large numbers of people. Additional roads that will need improvements include Quincy, Yale, County Line/Smoky Hill Roads, and Arapahoe Road. These improvements may include bicycle lanes/paths, sidewalk improvements, or transit stops, as appropriate.

Consideration should also be given to access requirements into and through the conservation areas to the south of Quincy Road. The County wants to ensure that potential major costs associated with building and improving roads, other transportation facilities, and maintaining roads and facilities to serve future development on the property are covered by development, which the goals below aim to do. The County also recognizes the need to update its Transportation Plan to address new facilities to provide access to the Lowry Range, including potential toll roads proposed for the area.



*Quincy Avenue will be the major arterial serving the property if and when development occurs.*

### **Goal T 1: Develop adequate transportation systems to serve new development on the Lowry Range.**

Ensure new development funds new and improved transportation systems (i.e., roads, sidewalks, bicycle lanes, and transit stations) to serve it, and pays for off-site facilities improvements that it will impact. In addition, new development should pay for the on-going maintenance costs of transportation facilities.

#### **Policy T 1.1: New Development Pays for Transportation to Serve it**

New development must pay for on and off-site transportation systems that will be necessary to serve it and must pay for on-going maintenance to meet urban level of service (e.g., impact fees).

### **Goal T 2: Design the transportation system for urban development area to provide connected, safe, and convenient vehicular, transit, bicycle, and pedestrian opportunities.**

Ensure that new development provides a safe, convenient, and connected transportation system for transit users, bicyclists, and pedestrians, as well as for cars.

**Policy T 2.1: County Transportation Plan Updated**

Prior to development of the Lowry Range, the County should update the Arapahoe County Transportation Plan to include Lowry Range on-site and regional transportation improvements.

**Policy T 2.2: Multiple Modes of Transportation**

New development should include plans for future multi-modal transportation, including transit (i.e., bus and possible rail). It should also include bicycle lanes, sidewalks, and trails for pedestrians, bicycles, and equestrians.

**Policy T 2.3: Urban Development Areas Accessible by Multiple Streets**

New urban growth or urban development area(s) must be accessible via more than one arterial street or other major street, as indicated by the potential road connections on the Plan Map. Streets should be connected to reduce congestion, to improve air quality, and to facilitate potential future transit service. This will also allow fire, law enforcement and emergency services to have multiple routes to respond to emergencies and allow for emergency service vehicles to meet nationally recognized standards in regards to response time.

**Policy T 2.4: Arterial Streets with Access Control**

Future arterial streets for the urban development area must have access control to allow for free flowing high traffic volumes, not just to serve business access. Arterial streets must be designed with features to promote safe use by bicyclists and pedestrians.

**Policy T 2.5: Connected Neighborhood Streets**

New urban development should provide connected local streets, sidewalks, and bicycle lanes. Higher intensity housing, jobs, and shopping should be concentrated around transit stations or stops.

**Goal T 3: Design new roads on the Lowry Range to be compatible with conservation goals.**

Future road corridors on the Lowry Range should avoid significant natural areas and be sited, designed, and constructed to minimize impacts on resources.

**Policy T 3.1: Roads Sited and Designed to Minimize Impacts**

Align future roads with current topography and site them to avoid significant natural areas and accommodate wildlife migratory patterns, drainage corridors, and reservoirs to the extent feasible.



## **Public Facilities and Services Goals and Policies**

If development plans proceed, the property could someday support a large population of residents and workers. Before activities occur, it will be important to ensure the Range is safe and cleared of munitions and pollutants, which the goals below address. In addition, the Range is currently located away from most types of urban services and infrastructure, so plans for development will need to address how the full range of needed facilities and services (i.e., water and wastewater treatment, electricity and gas, stormwater management, emergency police and fire services, community services such as parks and libraries, schools, and general government services). The County's policy is to require adequate facilities and services at the time of development. The goals below ensure these needs are addressed before development proceeds.

### **Goal PF 1: Ensure that the Lowry Range is safe and cleared of munitions and other pollutants before development, any proposed new use, or recreational uses take place.**

The U.S. Army Corps of Engineers (USACE) and Colorado Department of Public Health and Environment (CDPHE) are working to clear the site of munitions hazards to support future use and development. The munitions clean up is being conducted using best available technology to remove all detectable munitions hazards. The goal of the cleanup is to remove all munitions hazards from the site; however, it is not possible to confirm that all munitions have been removed and thus some low-level of residual risk will always remain and must be managed. The County recognizes that after the cleanup is complete there will be a residual risk that munitions hazards are still present on the site. To ensure the site is safe for development and to manage any residual risks, development and improvements should not occur before the site is safe and both (1) cleanup of the Development or Conservation Area is completed, and (2) appropriate measures are in place to manage any residual risks of munitions hazards that may be present on the site.

#### **Policy PF 1.1: Adequate Remediation of Unexploded Ordnance (UXO)**

Put appropriate measures in place to manage residual risks from munitions hazards before development, any proposed new use, or recreation use occur in accordance with the following.

- Ensure that the Army Corps of Engineers and the Colorado Department of Public Health and the Environment have been notified of proposed site activities, development, or disturbances, and have had an opportunity to consider the likelihood of encountering unexploded ordnance/munitions/munitions' hazardous constituents in the area of planned activity.
- Ensure that written plans are in place and implemented for long-term management of residual risks from munitions hazards in the area of planned activities.
- Ensure that adequate remediation has been conducted in the area of planned activity. Require developer to obtain written concurrence from CDPHE and USACE that site is safe for intended use.

- Inform the public, developers, and stakeholders of the associated potential risks of encountering unexploded ordnance/munitions/munitions' hazardous constituents, and the risks of such items.
- Take adequate steps to educate the future users of the site, of the actions they should and should not take if they encounter any unexploded ordnance/munitions/munitions' hazardous constituents.
- Require residential subdivisions, school sites, parks, and other similar high public use areas are safe by conducting an additional verification to confirm site is clear of residual munitions hazards. Require the site owner/developer to conduct subsurface geophysical mapping of the development footprint to confirm and document that the site is free of unknown munitions hazards.

### **Policy PF 1.2: Property Owner Disclosures**

New development must provide property owner disclosures informing future residents, businesses, and property owners about the potential for UXO to be present on the Lowry Range and procedures to follow in the event UXO is encountered and frequent military helicopter training conducted south of Quincy with flight routes from Buckley Air Force Base along Quincy.

## **Goal PF 2: Require adequate public facilities to coincide with development.**

Ensure that new development addresses how to provide the full range of necessary urban facilities and services at the time of development. (Essential Urban Services include but are not limited to: water and wastewater treatment, electricity and gas, stormwater management, emergency police and fire services, community services such as parks and libraries, schools, justice center facilities, and general government services).

### **Policy PF 2.1: Adequate Facilities and Services at the Time of Development**

Development plans must provide adequate facilities and services at the time of development. Development plan must address how to construct and fund improvements so current County residents incur no net cost as a result of new development.

### **Policy PF 2.2: On-going Maintenance and Operations Funding Mechanisms**

Development plans must propose how to pay for on-going maintenance and operations and set up financing mechanisms to do so. New development should also meet urban level of service standards for infrastructure and services.

## **Goal PF 3: Resolve how to provide services before development occurs.**

Development plans must propose how to provide services and resolve service district jurisdictions for fire protection, water and wastewater, and law enforcement before development proceeds.

### **Policy PF 3.1: Service Districts**

Development plans must propose how to provide services and resolve service district jurisdictions before development occurs, and should meet statutory requirements as well as perform a fiscal analysis that demonstrates no negative fiscal impact to the County. The county promotes conjunctive use and re-use water supply systems with emphasis on conservation.

### **Policy PF 3.2: Services Coincide with Timing of Development**

New development must provide infrastructure and services to coincide with timing of development (i.e., fire protection, school district(s), law enforcement, water, wastewater, stormwater, government services, and other services).

## **Goal PF 4: Ensure an adequate and long-term water supply for future development.**

Addressing the issue of a sustainable water supply will be necessary before development occurs. Developer(s) must prove the Lowry Range has adequate, long-term, and reliable water supplies to serve future development and guarantee infrastructure to develop, treat, and deliver potable water will be in place at the time of development.

### **Policy PF 4.1: Sustainable Water Supply Defined**

The County's policy is to encourage service providers to consider options to obtain and secure adequate renewable, tributary sources of water, rather than strictly relying on groundwater supplies for a sustainable source of water. Continue to develop criteria for what constitutes adequate and long-term water supply.

### **Policy PF 4.2: Clean, Safe Groundwater**

Verify, to the extent practicable, that groundwater in future development areas is safe for consumption before development occurs.

### **Policy PF 4.3: Wastewater Management**

New development should address how to manage and reuse wastewater to meet future needs. Domestic wastewater from all urban development at the Lowry Range will be treated at a central wastewater reclamation facility. To the greatest extent practical, reclaimed water will be reused for landscape irrigation and other appropriate uses. In recognition of the unique opportunities available for water reuse at a new community such as the Lowry Range, the following should be implemented to serve new development:

- Construct a dual-pipe water distribution system to distribute both potable and reclaimed water throughout the community.
- Instigate a public education program to advise all water system customers and visitors to the Lowry Range that reclaimed water is used and about appropriate measures to protect public health and the environment.
- Encourage use of reclaimed water for irrigation and also for commercial, industrial and municipal applications not requiring potable water.

- Consistent with the Regional Clean Water Plan, consider the possibility of beneficial land application of biosolids to appropriate parcels either on the Lowry Range or in as close proximity as feasible, in appropriate locations with safeguards as needed to protect water quality, and to promote re-use and cost-effective management of the resource.

Consistent with County policy, development that occurs within the urban growth boundary should be served by central utilities. In transition areas or where low-density clustered development may occur, consider decentralized wastewater systems permitted by the Colorado Department of Public Health and Environment (CDPHE). Such systems would be included in a Wastewater Utility Plan and could possibly be owned and operated by an existing Special District or a municipality. The use of such systems should only be considered in areas that are remote from central utilities, and such use must take into consideration the need for other services and facilities described in this Public Facilities and Services section of the plan (such as law enforcement, fire protection, schools, etc.), as appropriate.

### **Goal PF 5: Ensure that adequate school facilities and operational needs/costs are met concurrent with development.**

Identify and mitigate development impacts on school district(s) (i.e., Aurora School District, Bennett, and Cherry Creek). Aurora School District will administer K-12 grade education to future development areas north of Quincy Avenue. If residential development occurs south of Quincy Avenue, Cherry Creek and Bennett will administer schools. (See Map B-3: School Districts.) The County will require new development to provide adequate school sites in appropriate locations and to reach agreement with the serving district on provision of facilities to meet level of service requirements and operations at the time of development.

#### **Policy PF 5.1: School District Level of Service Requirements**

New development must meet school district level of service requirements regardless of jurisdiction. Development must provide adequate school sites and infrastructure (access roads and sidewalks and utility services including domestic, fire protection, and landscape water, sanitary and storm sewer, electric, natural gas, telephone, and cable television) and comply with school building construction standards.

#### **Policy PF 5.2: No Negative Fiscal Impact on Local School District**

New development must not have a negative fiscal impact on the school district that will serve it.

### **Goal PF 6: Ensure that fire protection facilities and operational needs/costs are met concurrent with development.**

Identify and mitigate development impacts on the fire district(s) that will serve development on the Lowry Range. The County will require new development to provide adequate sites in

appropriate locations and to reach agreement with the fire protection district on provision of facilities to meet level of service requirements and operations at the time of development.

**Policy PF 6.1: Fire District Level of Service Requirements**

New development must meet fire district level of service requirements regardless of jurisdiction. Development must provide adequate fire station sites and infrastructure.



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# Chapter 5: Implementation Strategies

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## **Introduction and Overview**

This chapter includes strategies to implement the Lowry Range Sub-Area Plan and to guide the County as development and conservation plans move forward for the Lowry Range. The chapter identifies specific actions to implement the goals under topics in Chapter 4, including:

- Land Use,
- Regional Coordination,
- Resource-Sensitive Growth and Neighborhoods,
- Natural and Cultural Resources Conservation,
- Open Space and Trails,
- Transportation, and
- Public Facilities and Services.

Later parts of the chapter include a diagram illustrating how development and conservation might play out on the Lowry Range depending on whether the property annexes into one of the municipalities or if it develops in the County. Finally, the chapter contains a matrix outlining each action and addressing timing and responsibility for actions.

## **Timing of Actions**

### **Immediate Actions**

The County will implement some aspects of this Sub-Area plan immediately, including:

- 1) Keep discussions between Denver Regional Council of Governments (DRCOG), the County, and the State Land Board active regarding timing of submissions to update Metro Vision 2035, the Clean Water Plan and other long-term planning needs.
- 2) Prepare an interim update of the Transportation Plan to acknowledge some future development on the Lowry Range, recognizing that the County will likely need to update its Transportation Plan when the State Land Board and development partner(s) begin development master planning efforts.

## Future Actions

Other actions will hinge on the timing and submission of a proposal from the State Land Board and its development and/or conservation partner(s). The Action Sequence Chart and Table of Actions identify these strategies and illustrate how they might occur.

## Implementing the Sub-Area Plan—What Will it Take?

The sections that follow identify approximately 25 strategies, or actions, to be accomplished before development master plans move forward for the Lowry Range. Some of the actions may be necessary regardless of whether the property annexes to a municipality or if it remains unincorporated. However, most of the strategies apply only if the State Land Board and its development and/or conservation partner(s) propose urban development in unincorporated Arapahoe County. The Action Sequence Chart and Table of Actions later in this chapter identify when and how actions should occur.

The numbering of the strategies relates to goals and policies in Chapter 4.

## Land Use

The Land Use goals in Chapter 4 aim to sustain Lowry Range south of Quincy Avenue as a “keystone” conservation property and confine future urban development to designated areas north of Quincy Avenue. Consistent with the goals, the Sub-Area Plan map identifies areas north of Quincy Avenue for “Urban Development,” and south of Quincy Avenue as a “Conservation Area.”

The following strategies will accomplish the land use goals and lead to a development and conservation pattern that is consistent with the Sub-Area Plan map.

## Land Use Strategies

### ***Strategy LU 1(a) - Establish Conservation Zone .***

Do not rezone lands south of Quincy Avenue for Urban Development. Establish a new Lowry Range “Conservation” zone that is consistent with the definition of Conservation in this Plan to allow a complementary mix of uses that are recreation and resource-oriented and that allows on-going military training and other current activities, such as grazing. Improvements should only occur in areas that are not resource-sensitive. Management Plans should identify approaches to protect significant resources. (See Natural and Cultural Resources Conservation Strategies on page 40.)

***Strategy LU 2(a) - Change Zoning for Urban Development North of Quincy Avenue.***

If the State Land Board and its development partners determine that the Lowry Range is not going to annex into a municipality and financing issues are satisfactorily addressed, change zoning to allow urban development north of Quincy Avenue, in accordance with an approved development master plan.

***Strategy LU 2(b) — Develop Standards to Protect Drainages.***

Create standards to protect drainages. Standards should prevent dredging, filling, or otherwise altering the 100-year floodplain, except to allow restoration. Uses by Special Review may be necessary to further the standards.

## **Regional Coordination/Urban Growth Management**

The Regional Coordination goal in Chapter 4 aims to resolve jurisdictional and governance questions before urban growth and development occurs on the Lowry Range. Before development moves forward, the State Land Board and its partner(s) will need to work with the County and municipalities to determine whether the property will be annexed or remain in unincorporated Arapahoe County. The strategies below will help achieve the goal of regional coordination.

### **Regional Coordination Strategies**

***If Annexation will Occur***

If the State Land Board and its development and/or conservation partner(s) propose annexation into one of the municipalities, then the following actions should occur.

***Strategy RC 1(a) - Work with Municipalities to Determine Mutually Beneficial Development.***

Continue to work with municipalities to determine mutually-beneficial development service provisions and jurisdictional issues. Methods for service provision shall ensure that no negative fiscal or other impacts should occur in the County and boundaries should be logical and contiguous.

***Strategy RC 1(b) - Address Financial Mechanisms to Pay for Development.***

Address financial mechanisms to ensure new facilities and services will be provided concurrently with development and will be paid for by development. The County and municipalities may need to address financial terms through an intergovernmental agreement.

### ***For Development in Unincorporated County***

If development occurs in unincorporated County, before development approval, the following actions should occur.

#### ***Strategy RC 1(c) - Work with DRCOG on Growth Allocations.***

Work with DRCOG to obtain growth allocations for Metro Vision 2035 for the Lowry Range growth area north of Quincy Avenue. The County and DRCOG will need to continue joint planning for the area, starting with adoption of the sub-area plan to ensure that submissions occur to meet DRCOG timelines.

#### ***Strategy RC 1(d) - Address Financial Mechanisms to Pay for Development.***

Address financial mechanisms to ensure facilities and services are provided concurrently with development and are paid for by development. Set forth financial strategies through intergovernmental agreements (IGAs) with service districts and/or a development agreement with the developer(s) of the Lowry Range.

## **Resource-Sensitive Growth and Neighborhoods**

The Resource-Sensitive Growth and Neighborhood goals in Chapter 4 aim to promote resource-sensitive growth on Lowry Range north of Quincy Avenue (following certain principles identified in Chapter 4), to promote high-quality new neighborhoods when urban development occurs, and to provide a mix of housing, jobs, and services within the urban development. The strategies below help achieve the resource-sensitive growth and neighborhood goals of this Plan.

### **Resource-Sensitive Growth and Neighborhood Strategies**

#### ***For Development in Unincorporated County***

The County will undertake these actions if development occurs in the unincorporated County.

#### ***Strategy RS 1(a) - Resource Sensitive Growth Standards***

Develop standards or criteria to ensure new development on the Lowry Range occurs in a resource-sensitive manner (See Chapter 4 and definitions for more information.) The County should base leading edge standards or criteria on the “Resource-Sensitive Growth Principles” in this Plan, outlined in Chapter 4.

#### ***Strategy RS 2(a) - Neighborhood Design Standards or Criteria***

To ensure neighborhoods that are designed to be connected and walkable, contain a compatible and complementary mix of uses, and include a mix of housing types, Neighborhood Design Standards or Criteria will be helpful. The County should



develop standards to address these neighborhood quality issues, using the “Neighborhood Design Principles” in Chapter 4 of this Plan as a guide.

## Natural and Cultural Resources Conservation

The Natural and Cultural Resources Conservation goals in Chapter 4 aim to conserve land south of Quincy Avenue and along the Coal Creek and Box Elder drainages, to provide long-term stewardship to protect significant natural areas and drainages, monitor and protect water quality, and to protect historic and cultural sites. The strategies below help achieve the goals.

### Natural and Cultural Resources Conservation Strategies

#### *For Development in Unincorporated County or with Annexation*

The County will undertake the following natural and cultural resources conservation actions if development occurs in the unincorporated County; however, the County may still participate in joint planning for conservation of portions of the Lowry Range even if annexation occurs.

#### ***Strategy NC 1(a) — Develop Standards Prohibiting Disturbance in 100-year Floodplain on Lowry Range.***

Develop standards to prohibit filling 100-year floodplain for urban development and limit disturbance in 100-year floodplain, except for restoration purposes. Identify cases where additional setbacks might be merited, for instance if a significant natural resource abuts the floodplain.

#### ***Strategy NC 2(a) — Assist with Management Plan(s) for Conservation Area.***

The County does not anticipate taking the lead in management planning for the Conservation Area; however, it will support conservation partners who undertake such work. Management Plan(s) should address compatibility of activities (focusing on protecting significant natural areas), and should also address long-term stewardship of significant natural areas and sensitive resources. Management Plan(s) should also address how to site, design, and construct any improvements in the Conservation Area to minimize degradation to significant natural areas, taking into account the Colorado Natural Heritage Program’s recommendations for management approaches.

#### ***Strategy NC 3(a) - Develop Standards for Setbacks to Protect Water Quality.***

Develop standards establishing setbacks for reservoirs, streams, wells, and utility easements to prevent pollutants in surface run-off from entering these water bodies and sources.

***Strategy NC 4(a) - Develop Standards to Protect Cultural and Historic Sites.***

Develop standards to locate development away from cultural and historic sites to protect them.

## **Open Space and Trails**

The Open Space and Trails goal in Chapter 4 aims to establish open space and trails on the Lowry Range that connects to a regional system. The strategies below will help achieve these goals.

### **Open Space and Trails Strategies**

***For Development in Unincorporated County or with Annexation***

The County will undertake the following open space actions if development occurs in the unincorporated County; however, the County may still participate in joint planning for open space and trails on portions of the Lowry Range even if annexation occurs.

***Strategy OS 1(a) - Coordinate Regional Open Space and Trails.***

Work with adjacent cities and counties to identify and connect regional open space corridors and trails and to coordinate the County's open space and trails master plan (to be developed) with a regional system.

***Strategy OS 1(b) - Seek Grants and Partnerships to Leverage County Open Space.***

The County should leverage its Open Space and Trails acquisition and improvement fund by seeking partnerships and grant opportunities to stretch local funds.

## **Transportation**

The Transportation goals in Chapter 4 aim to develop adequate transportation system to serve new development on the Lowry Range, to design the urban development transportation system to provide connected, safe, and convenient vehicular, transit, bicycle, and pedestrian opportunities, and to ensure that new roads are compatible with conservation goals. The strategy below helps achieve the transportation goals of this Plan.

### **Transportation Strategies**

***For Development in Unincorporated County or with Annexation***

The County will undertake the following action if urban development occurs in the unincorporated County or if annexation occurs.

***Strategy T 2(a) - Update County's Transportation Plan***

When the State Land Board and its development partner(s) approach the County with a specific development proposal, the County will need to update its Transportation Plan to provide a future connected road system to serve urban development north of Quincy Avenue and other transportation system improvements south of Quincy Avenue.

## **Public Facilities and Services**

The Public Facilities and Services goals in Chapter 4 aim to: ensure the Lowry Range is cleared of munitions before development or other proposed activities take place; require adequate public facilities to coincide with development; resolve how to provide services before development occurs; ensure an adequate long-term water supply; and, ensure that adequate school facilities are met concurrently with development. The strategies below help achieve those goals.

### **Public Facilities and Services Strategies**

#### ***For Development in Unincorporated County***

The County will undertake the following public facilities and services actions if development occurs in unincorporated County.

##### ***PF 1(a) - Clear Property of Munitions and Pollutants.***

Put appropriate measures in place to manage residual risks from munitions hazards before development, any proposed new use, or recreation use occur including the measures set forth in Chapter 4 in Policy PF1.1. Put into place also standards to require property owner disclosures.

##### ***PF 3(a) — Fire Service District Established before Development.***

Because the Lowry Range is not currently served by a Fire Protection District, development must propose how to provide fire protection before development proceeds.

##### ***PF 3(b) — Law Enforcement Service Established before Development.***

Because the Lowry Range is currently served by the County Sheriff where the County is not anticipating urban police protection requirements, development must propose how to provide law enforcement protection to serve urban development before development proceeds.

##### ***PF 3(c) — Water and Wastewater Services Determined before Development.***

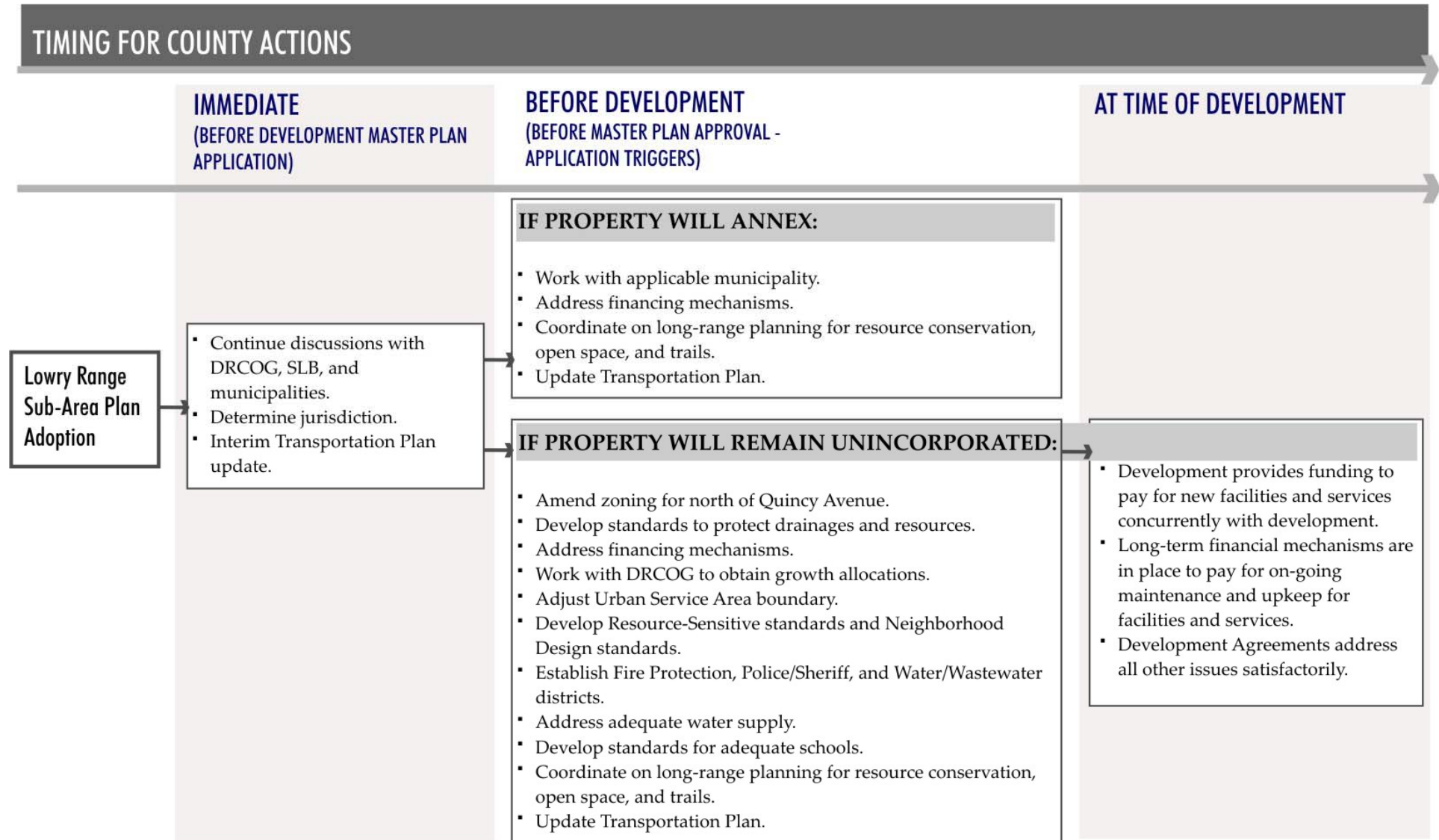
Because some sections of the Lowry Range are not currently served by a Water District or Metropolitan District, development must propose how to provide water and wastewater services before development proceeds.

***PF 4(a) - Adequate and Long-Term Water Supply.***

Ensuring that a sustainable water supply is available is necessary before development occurs. The County should work with service providers and State Engineer to establish criteria for long-term water needs.

***PF 5(a) — Standards for Adequate School Facilities.***

Establish level of service requirements for schools that mirror Aurora School District's requirements for areas north of Quincy Avenue that will apply regardless of jurisdiction. Standards will require development to provide adequate school sites and comply with building construction standards and should have no negative fiscal impacts on the local school district.

**Figure 2: Action Sequence Chart**

**Table 1: When Should Actions Occur?**

	LAND USE			REGIONAL COORDINATION	NATURAL/CULTURAL PROTECTION	OPEN SPACE & TRAILS	TRANSPORTATION	PUBLIC FACILITIES & SERVICES
	LU 1(a) — Restrict Rezoning / Conservation Zone	LU 2(a) — Change Zoning North of Quincy Ave.	LU 2(b) — Standards Protecting Drainages					
Strategy is applicable for the County if the Lowry Range annexes to a municipality.	●			●	●	●	●	
				●				
Strategy is applicable for the County if the Lowry Range develops in unincorporated Arapahoe County.	●	●	●	●	●	●	●	●